

WHAT IS CLAIMED IS:

CLAIMS:

- Sub A<sup>1</sup> 5 1. A coating composition for application on an ink jet printed porous substrate for improving the waterfastness of the ink jet image comprising a polymer, a pH modifier, a thickening additive, an electrolyte, a surfactant, and water.
- Sub A<sup>2</sup> 10 2. A coating composition as claimed in claim 1 wherein the polymer comprises ethoxylated polyethyleneimine.
- Sub A<sup>2</sup> 15 3. A coating composition as claimed in claim 2 wherein the ethoxylated polyethyleneimine comprises from about 0.5% to 10% by weight, based on a 100% weight basis.
- Sub A<sup>2</sup> 20 4. A coating composition as claimed in claim 3 wherein the ethoxylated polyethyleneimine comprises 5% by weight.
- Sub A<sup>2</sup> 25 5. A coating composition as claimed in claim 1 wherein the surfactant is selected from the group consisting of nonionic, anionic and cationic surfactants.
- Sub A<sup>3</sup> 6. A coating composition as claimed in claim 5 wherein the surfactant comprises Surfynol.
- Sub A<sup>3</sup> 7. A coating composition as claimed in claim 6 wherein the Surfynol is present in an amount of about 0.05% to 0.5% by weight.
- Sub A<sup>3</sup> 8. A coating composition as claimed in claim 7 wherein the Surfynol comprises 0.3% by weight.

9. A coating composition as claimed in claim 1 wherein the pH modifier comprises N,N-dimethylethanolamine.
10. A coating composition as claimed in claim 9 wherein the N,N-dimethylethanolamine is present in an amount capable of maintaining the pH of the coating composition between about 8.8 and 9.1.
11. A coating composition as claimed in claim 10 wherein the N,N-dimethylethanolamine is present in an amount of about 1% to about 3% by weight.
12. A coating composition as claimed in claim 11 wherein the N,N-dimethylethanolamine comprises 2% by weight.
13. A coating composition as claimed in claim 1 wherein the electrolyte comprises ammonium sulfate.
14. A coating composition as claimed in claim 13 wherein the ammonium sulfate is present in an amount of about 0.5% to 5% by weight.
15. A coating composition as claimed in claim 1 wherein the thickening additive comprises Guar.
16. A coating composition as claimed in claim 15 wherein the Guar is present in an amount of up to about 1% by weight.
17. A coating composition as claimed in claim 1 further comprising a lower aliphatic alcohol.

18. A coating composition as claimed in claim 1 further comprising a biocide.

19. A coating composition as claimed in claim 1 further comprising an ultraviolet fluorescent dye.

5

20. A coating composition as claimed in claim 1 wherein the coating composition is used as a pre-coat treatment prior to ink jet imaging the substrate.

TOKYO - BEIJING